

Missouri Department of Natural Resources

## Total Maximum Daily Load Information Sheet

### Jenkins Creek

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#### Water Body Segment at a Glance:

**County:** Jasper  
**Nearby City:** Fidelity  
**Water Body ID:** 3207  
**Segment Length:** 2.8 miles  
**Watershed Size:** 36.4 square miles  
**Pollutant:** Bacteria  
**Source:** Rural nonpoint sources



Statewide Map Showing Location of Watershed

**Scheduled for TMDL development:** 2015

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#### Description of the Problem

##### Designated beneficial uses of Jenkins Creek

- Livestock and Wildlife Watering
- Protection of Warm Water Aquatic Life
- Protection of Human Health (Fish Consumption)
- Whole Body Contact Recreation – Category A

##### Uses that are impaired

- Whole Body Contact Recreation – Category A

##### Standards that apply

- Missouri's Water Quality Standards at 10 CSR 20-7.031(4)(C) states that for waters designated for whole body contact recreation category A, the *E. coli* bacteria count, measured as a geometric mean, shall not exceed 126 colonies per 100 milliliters of water during the recreational season. The recreational season is defined as being from April 1 to October 31.

##### Background information and water quality data

Jenkins Creek is a rural stream located in Jasper County east of Fidelity, Mo. Jenkins Creek flows east to west and is a tributary of Jones Creek. Jenkins Creek is designated for category A whole body contact recreation use and was first listed as impaired by bacteria on the state's 2012 303(d) List of impaired waters, which was approved in whole by the U.S. Environmental Protection Agency on Nov. 13, 2012.

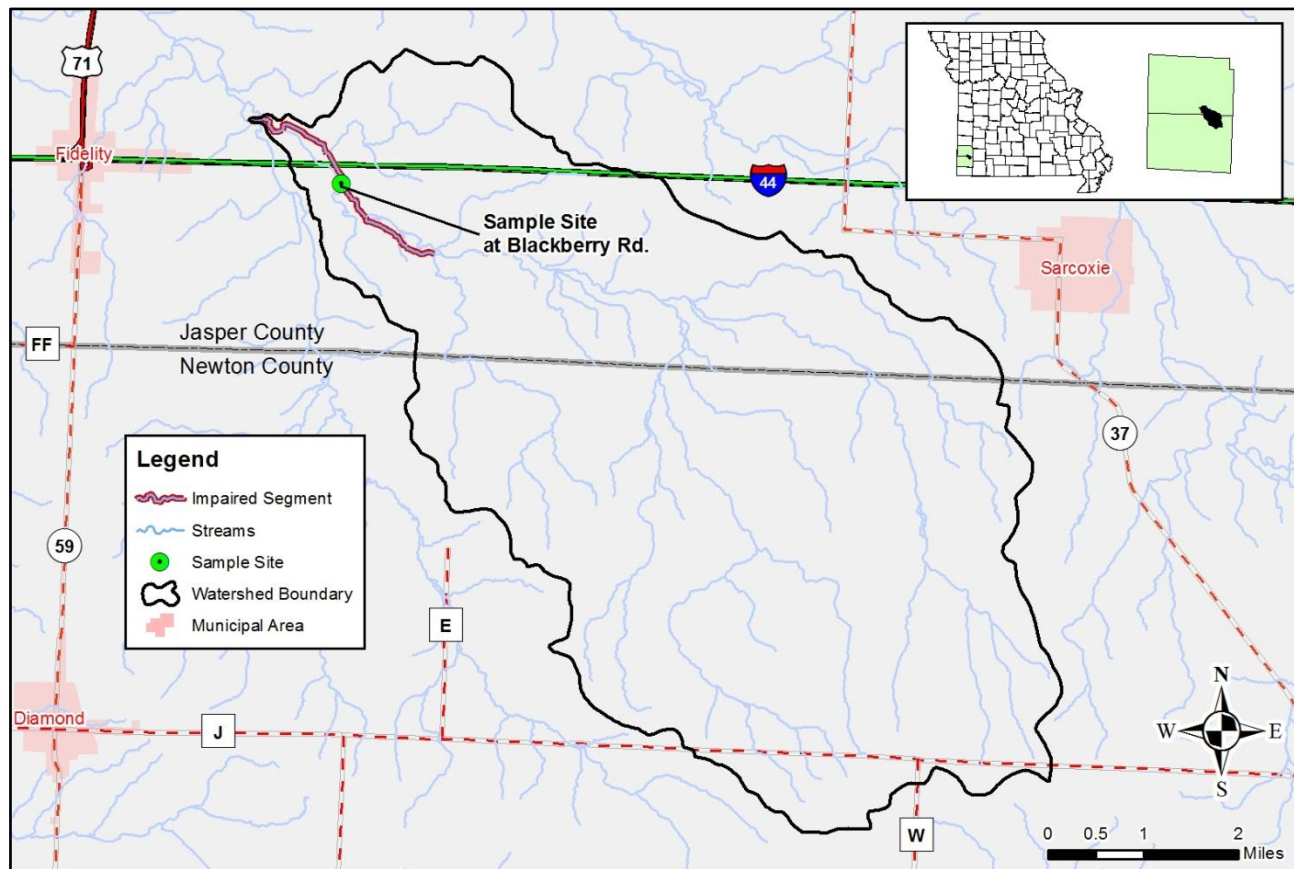
The department judges a stream to be impaired by bacteria if the water quality criterion for *E. coli* is exceeded in any of the last three years for which there is adequate data (minimum of five samples taken during the recreational season). High counts of *E. coli* are an indication of fecal contamination and an increased risk of pathogen-induced illness to humans. *E. coli* are bacteria found in the intestines of warm-blooded animals and are used as indicators of the risk of waterborne disease from pathogenic (disease causing) bacteria or viruses. Missouri's whole body contact bacteria criteria are based on specific levels of risk of acute gastrointestinal illness. The level of risk correlating to the category A criterion is no more than 8 illnesses per 1,000 swimmers in fresh water (0.8 percent).

Sufficient recreational season *E. coli* bacteria data for Jenkins Creek was collected in 2010 and 2011. The geometric mean of these data exceed the whole body contact category A criterion in 2010. For this reasons, Jenkins Creek has been assessed as impaired by *E. coli*.

**Bacteria Data for Jenkins Creek**

<i>Sample Location</i>	<i>Year</i>	<i>Month</i>	<i>Day</i>	<i>E. coli</i> (counts/100mL)
Jenkins Cr. at Blackberry Rd.	2010	7	13	112.6
Jenkins Cr. at Blackberry Rd.	2010	7	19	113.7
Jenkins Cr. at Blackberry Rd.	2010	8	9	115.3
Jenkins Cr. at Blackberry Rd.	2010	8	16	62.4
Jenkins Cr. at Blackberry Rd.	2010	8	23	35.5
Jenkins Cr. at Blackberry Rd.	2010	8	30	101.9
Jenkins Cr. at Blackberry Rd.	2010	9	7	85.7
Jenkins Cr. at Blackberry Rd.	2010	9	14	387.3
Jenkins Cr. at Blackberry Rd.	2010	9	21	178.9
Jenkins Cr. at Blackberry Rd.	2010	9	28	98.7
Jenkins Cr. at Blackberry Rd.	2010	10	5	63.1
Jenkins Cr. at Blackberry Rd.	2010	10	19	261.3
Jenkins Cr. at Blackberry Rd.	2010	10	26	686.7
<b>Geometric Mean =</b>				126.9

### Map Showing the Jenkins Creek Watershed



**NOTE:**

The final Jenkins Creek TMDL will use the most recent and available data and information.

**For more information call or write:**

Missouri Department of Natural Resources

Water Protection Program

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